

Figure 1

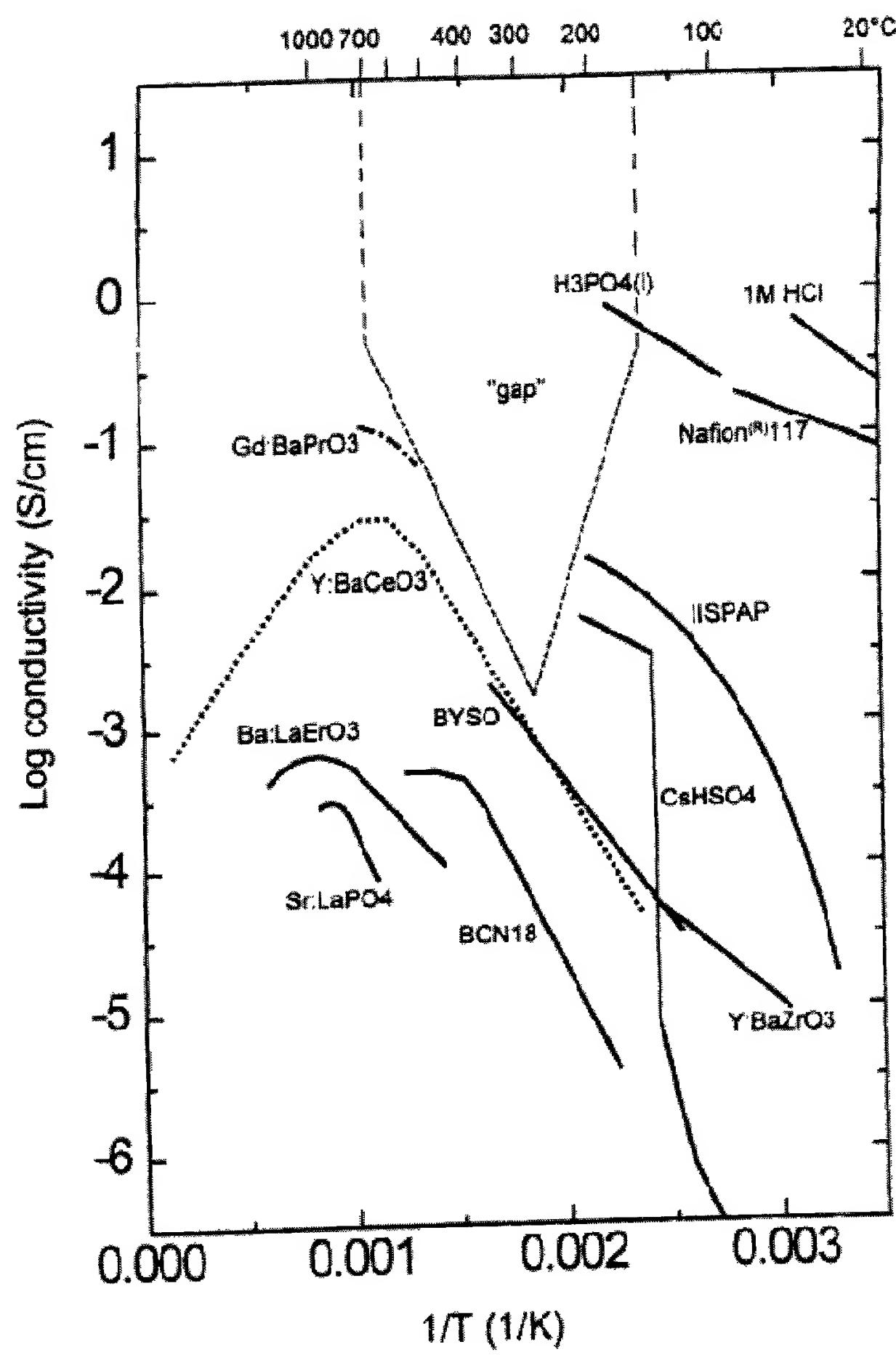
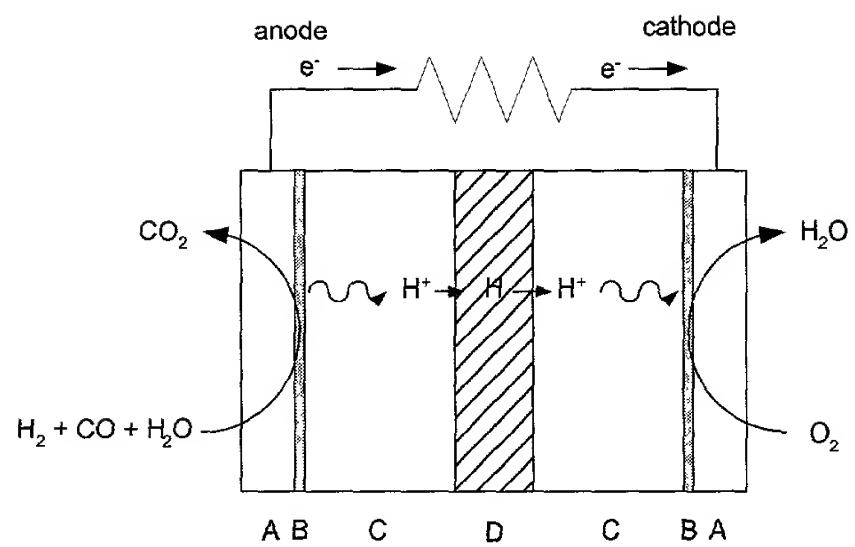


Figure 2



A: Porous Gas Diffusion Electrode  
 B: Electrocatalyst Layer  
 C: Proton Permeable Electronic Insulator Layer  
 D: Palladium Membrane

**Figure 3**

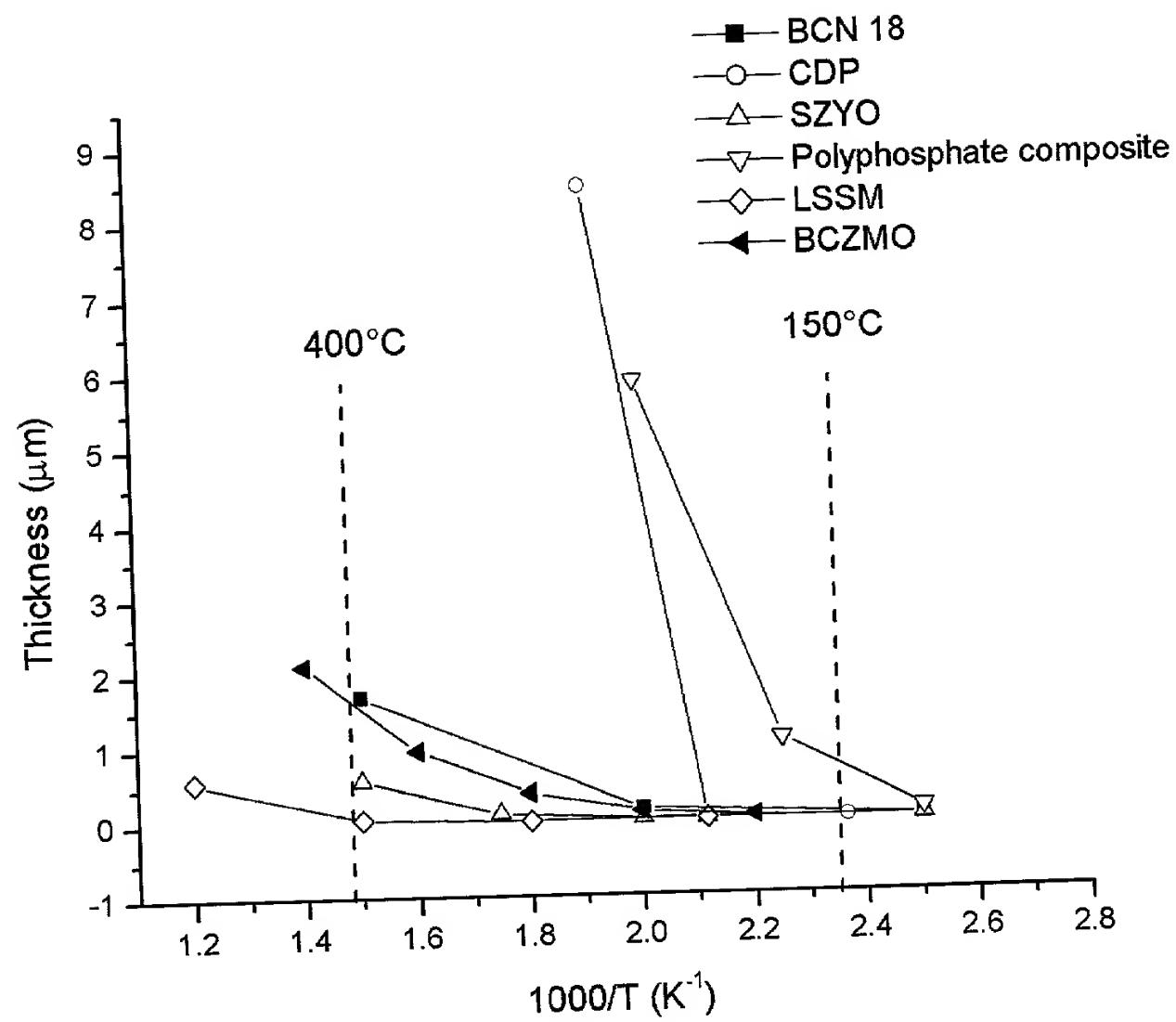
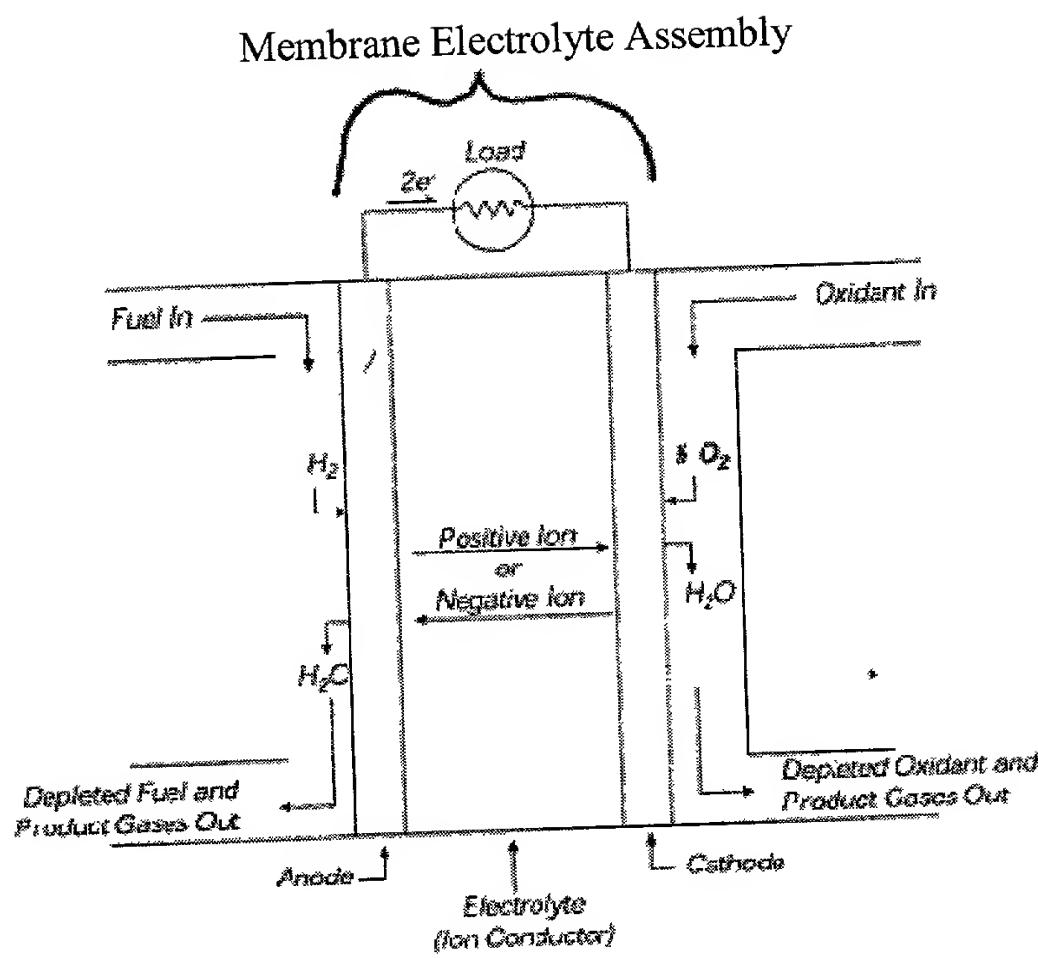
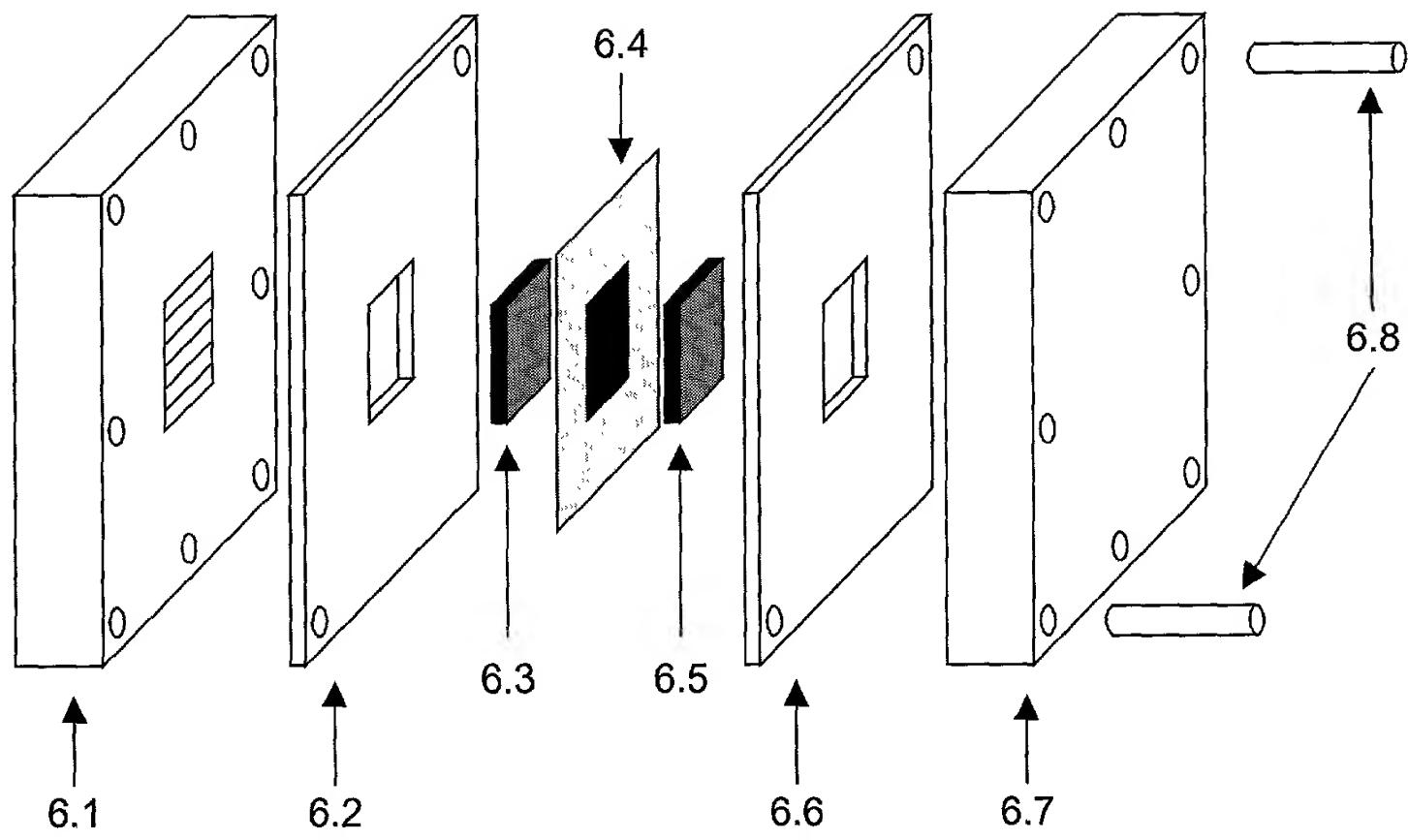


Figure 4



**Figure 5**



- 6.1 Graphite block with anode flow field
- 6.2 PTFE gasket
- 6.3 Anode: catalyzed gas diffusion layer (carbon cloth)
- 6.4 Proton Conducting Composite Membrane comprising an electronically insulating proton conductor (hatched section) supported on a metal hydride, i.e., Pd foil (dotted section)
- 6.5 Cathode: catalyzed gas diffusion layer (carbon cloth)
- 6.6 PTFE gasket
- 6.7 Graphite block with cathode flow field
- 6.8 Alignment pins

**Figure 6**

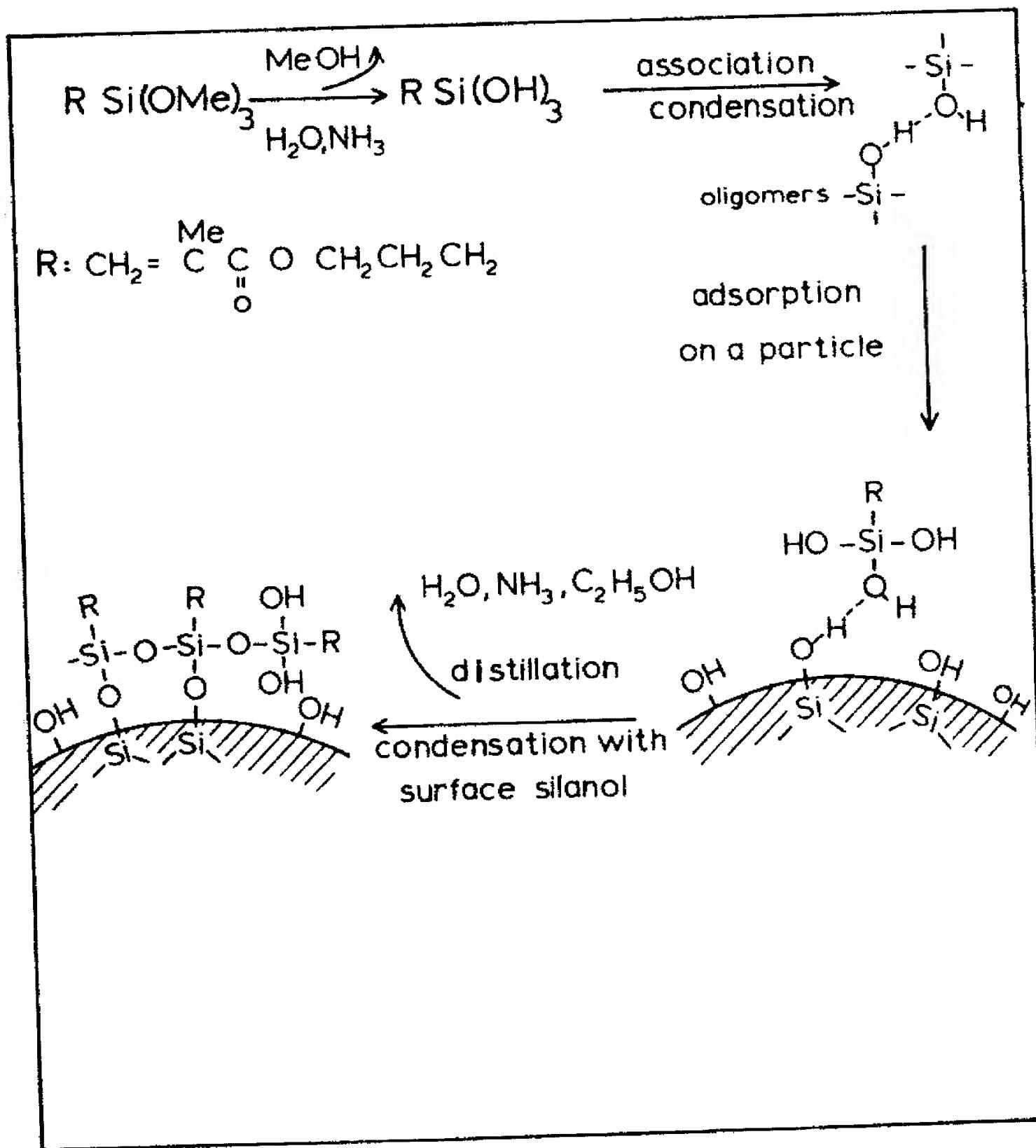
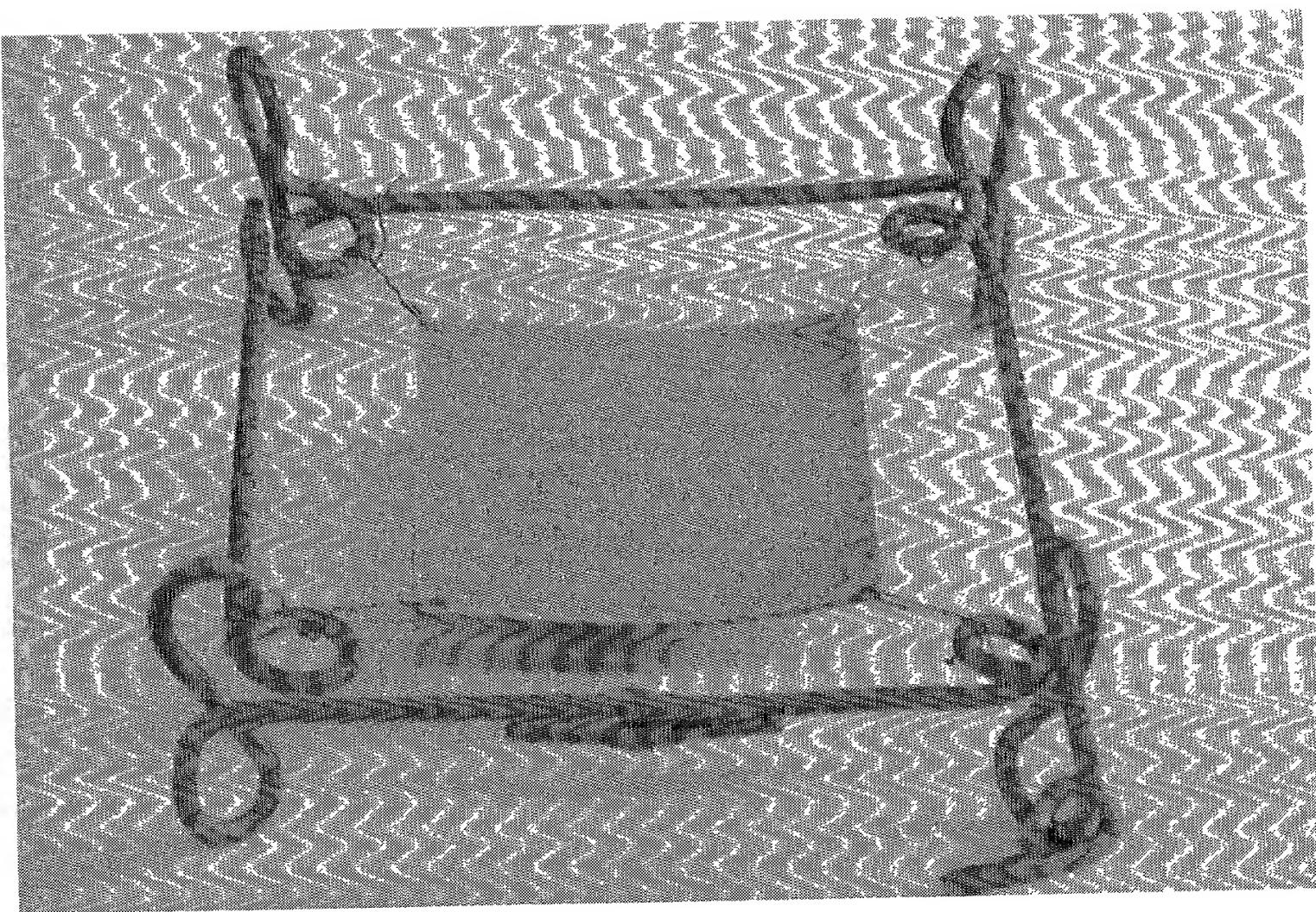


Figure 7



**Figure 8**

Intermediate temp fuel cell, H<sub>2</sub>/O<sub>2</sub>

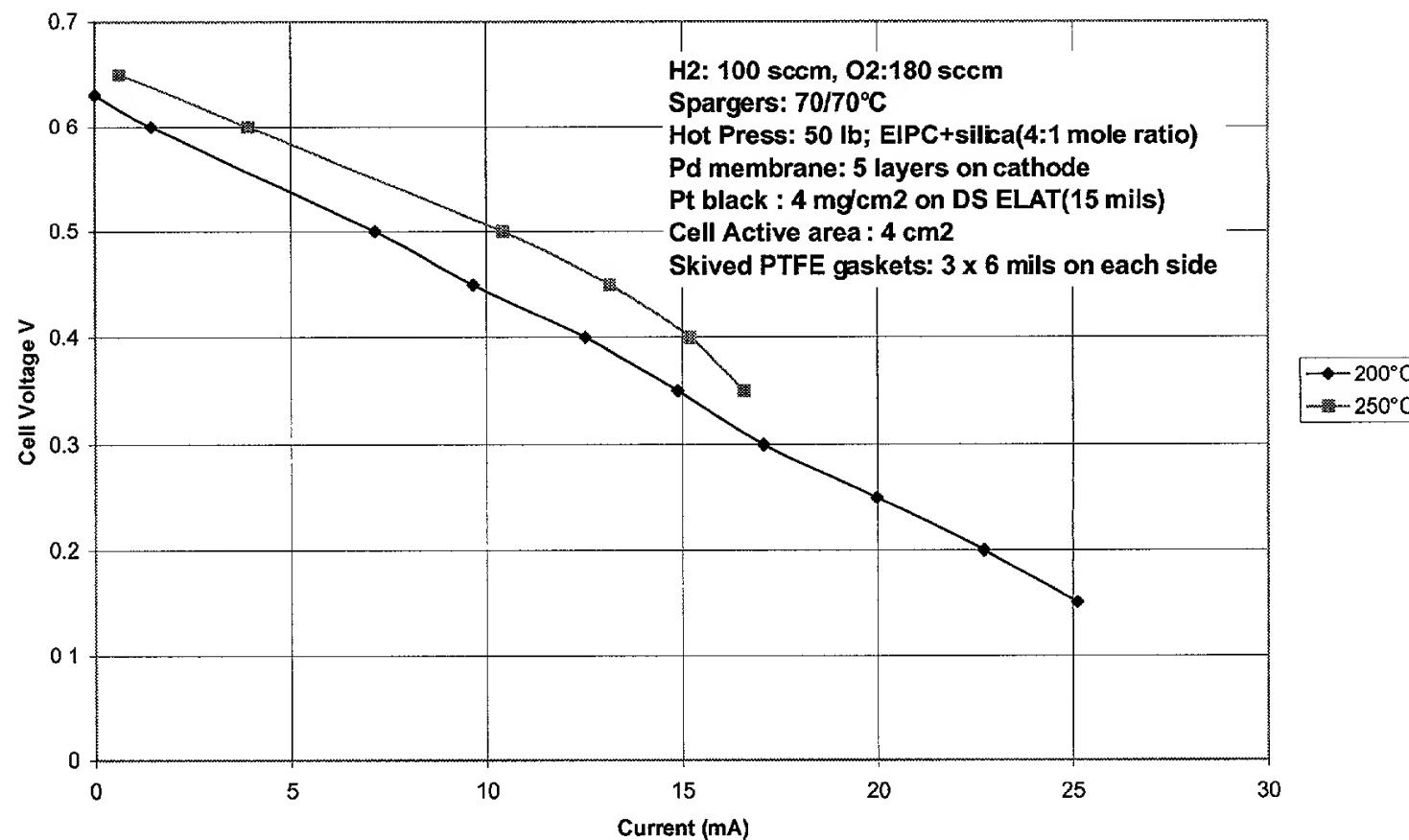


Figure 9

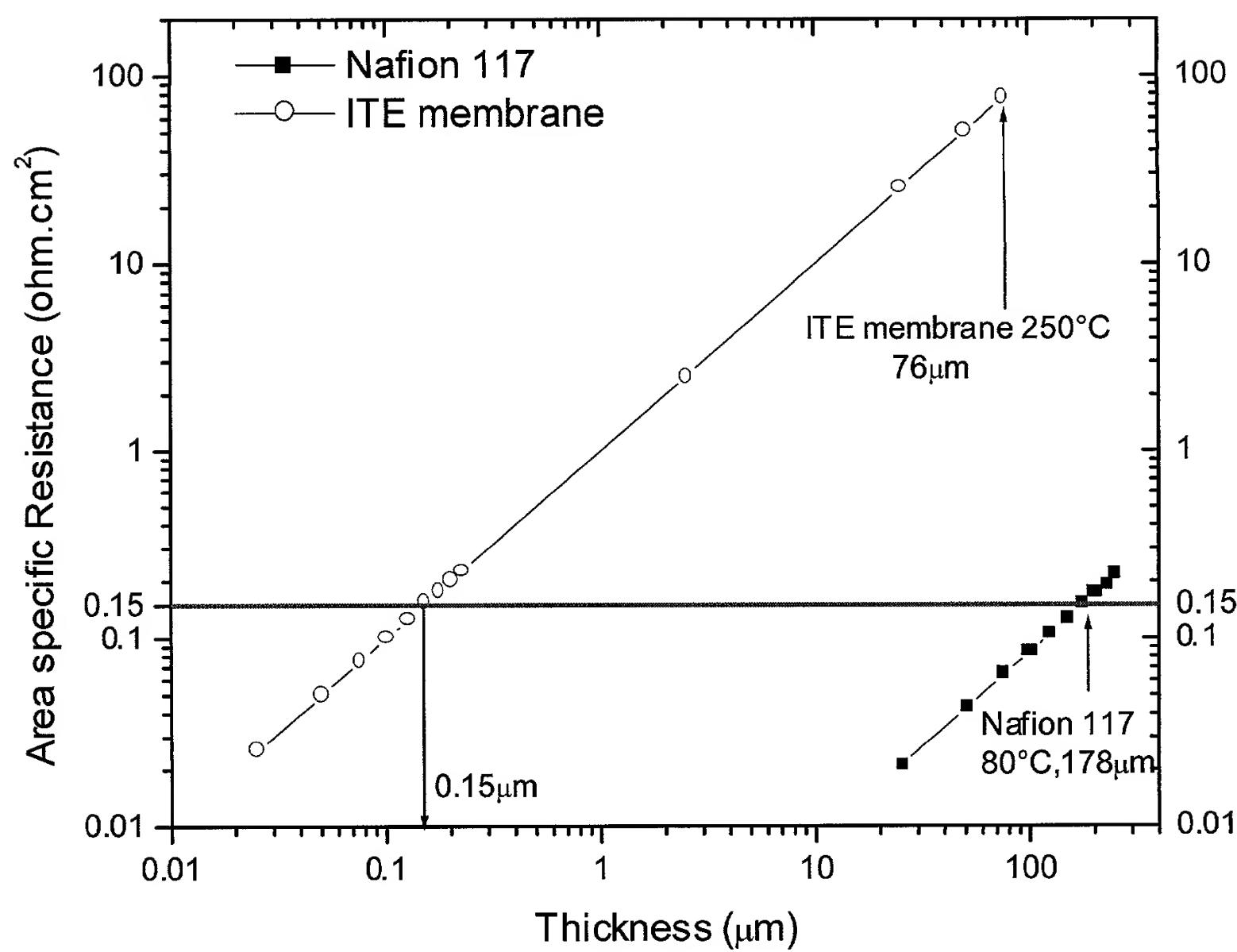


Figure 10

Partial Reformate Fuel Cell (PRFC) System

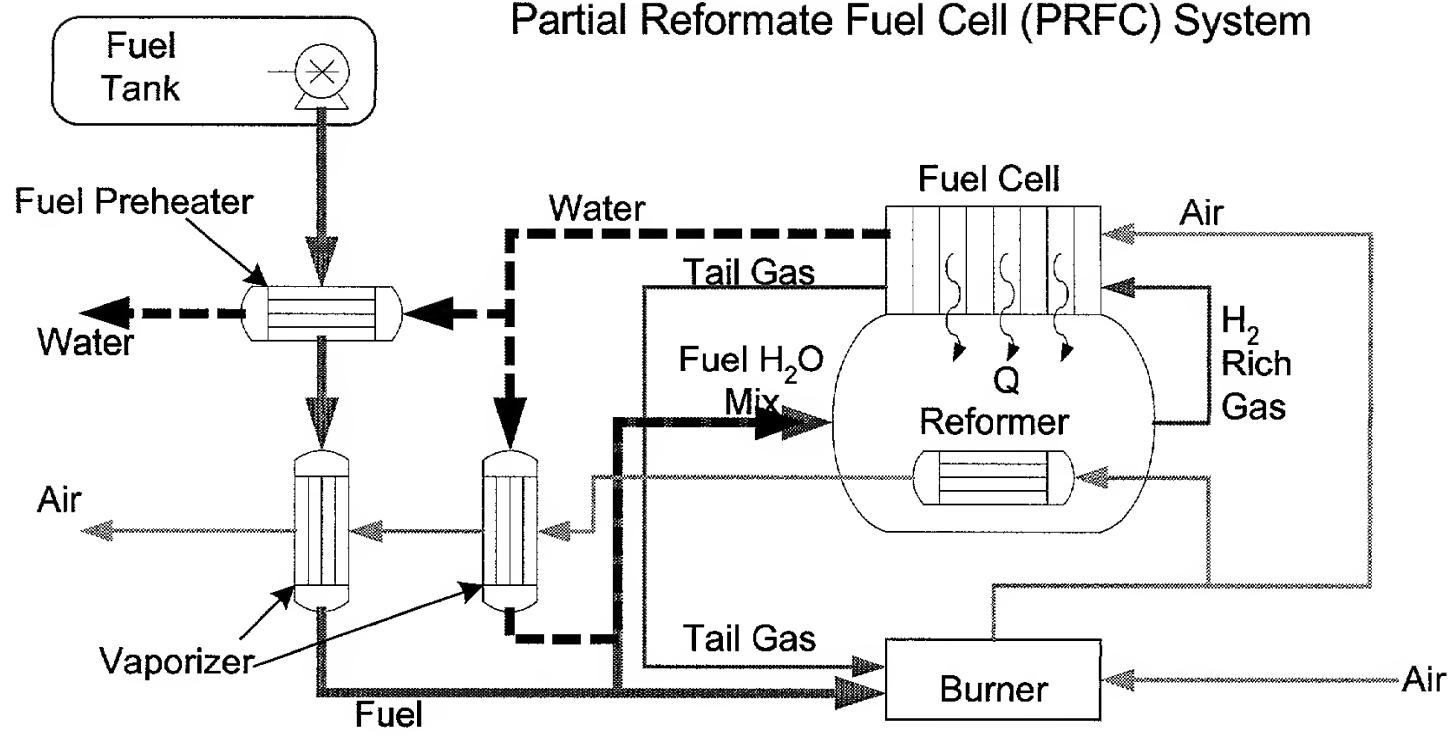


Figure 11

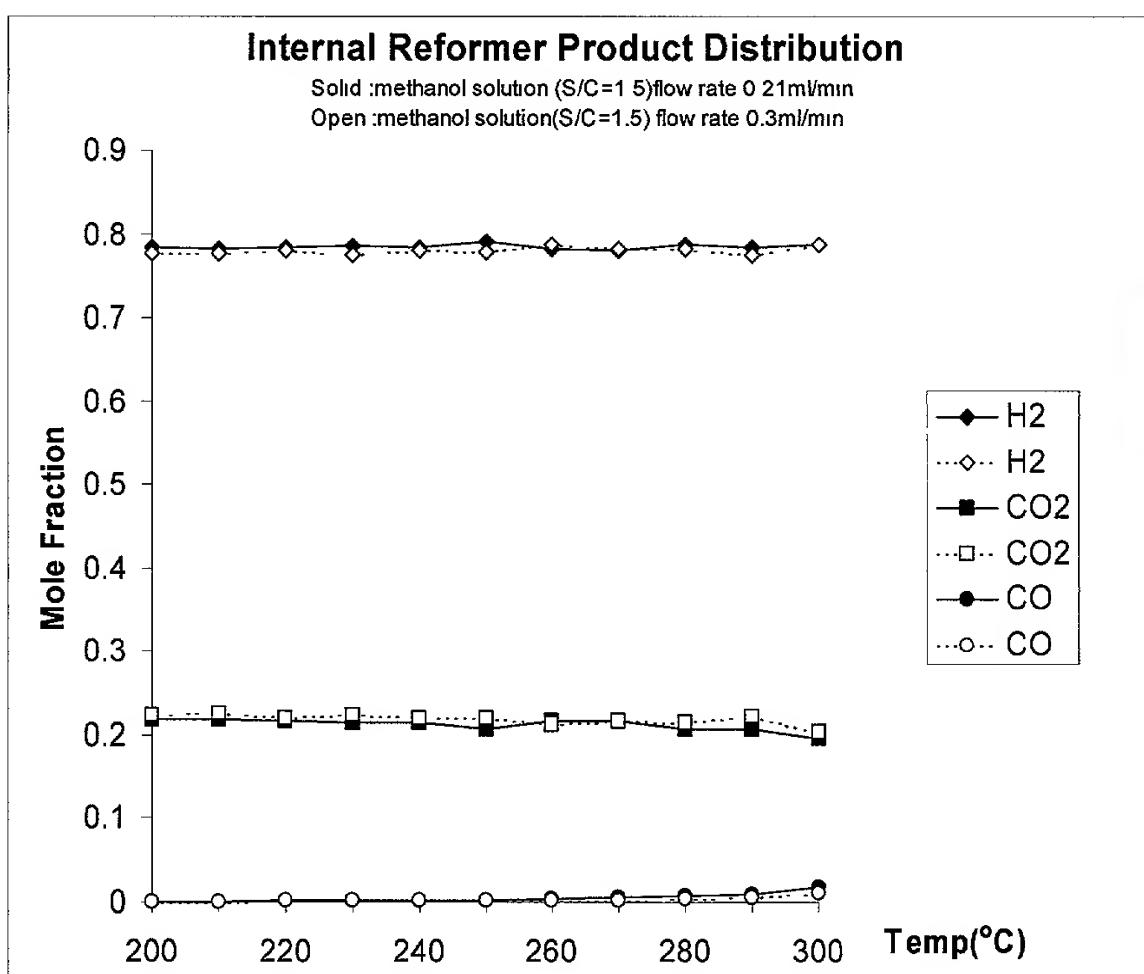


Figure 12